

Warwick Public Schools: Leveraging Knowledge and Partnerships in Rhode Island

EnergySmart School Close-Ups highlight schools and school districts that have found ways to use energy more wisely, lowering their energy bills and raising awareness of energy issues.

- ✓ Improving Existing Buildings
- ✓ Financing Building Improvements
- ✓ Operating and Maintaining Buildings
- ✓ Designing New Buildings
- ✓ Teaching and Learning
- Using Renewable Energy Technologies
- Using Alternatively Fueled School Buses



Warwick, Rhode Island is a small New England city with grand visions of energy efficiency. The Warwick Public School system, in collaboration with the City of Warwick, private industry, public utilities, and a devoted Energy Educator/Manager, is well on the way to reaching its goal of creating and instilling an “Energy Conservation Ethic” within the school district and the surrounding community.

A growing commitment to energy conservation

With a history of energy-efficiency efforts, including a re-lamping initiative and acquisition of funding for extensive new construction and facility upgrades, the Warwick Public schools were poised to take another major step in their energy-efficiency efforts. In the spring of 1999, the district hired Robert Cerio as an Energy Educator/Manager to re-evaluate the schools’ energy practices and to promote energy efficiency throughout the district.



Warwick's Winman Junior High School

Rebuild America assists

As Cerio developed Warwick’s energy strategies, he recognized that the Department of Energy’s Rebuild America program, with its mission of facilitating the formation of community partnerships, aligned with the district’s goals. Working with Pat Condon at the Rhode Island State Energy Office, the Warwick Public School district applied for and was awarded a Rebuild America grant for \$40,000. The grant helped to offset the cost of the Energy Manager position, complete retrofit projects already under way, develop energy awareness programs in the schools, and purchase energy management software for accurately measuring the quantitative value of the district’s energy-efficiency efforts.

One of the projects already under way and completed with help from the Rebuild grant was a re-lamping program. Over a four-month period, Warwick schools replaced incandescent lamps with compact fluorescent light (CFL) fixtures. Energy audits were conducted in the district’s buildings and custodial staff installed the new CFLs in the selected facilities. The re-lamping program affected approximately 475,000 sq. ft., reducing energy usage by approximately 226,840 kWh for an estimated annual cost savings of \$21,550.



A Campaign of Rebuild America
U.S. Department of Energy



PROFILE:

Location:

Warwick, Rhode Island

District size:

475,000 square feet

Energy project scope:

Lighting retrofits,
energy management
systems/software, edu-
cational programming

Date completed:

Ongoing

Energy saved:

226,840 kWh annually
due to lighting retrofits

Dollars saved:

\$300,000 annually

Project funding:

U.S. Department of
Energy, Rhode Island
State Energy Office

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Strategizing: partnerships, curriculum and software

To augment building improvements, the district partnered with Energy Education, Inc. (EEI) to support energy efficiency curriculum development. EEI is an energy management organization that trains school energy managers how to promote energy efficiency throughout the district while working in tandem with principals and facilities personnel. EEI has worked with over 300 school districts in 40 states. Their program involves a four-year commitment from the district, consisting of energy manager training sessions, analysis of school improvement needs and subsequent solutions, and K-12 energy conservation curriculum dealing with all aspects of energy use. Many Warwick teachers have already expressed interest in integrating the curriculum into their science programs.

Warwick further expanded its energy efficiency solutions with the purchase of an energy management software package, funded through the Rebuild grant. FASER (Fast Accounting System for Energy Reduction) is a widely used energy management program that performs cost-benefit analysis. Developed by ENRON, a Texas-based software company, the comprehensive software takes into account baseline data and compensates for such inconsistencies as temperature and billing period variation. The software produces reports on everything from cost avoidance to time savings to budgets.

Savings and new opportunities

The combination of Rebuild America's services and funding, the City of Warwick's cooperation, private and public sector partnerships, and Cerio's enthusiastic implementation have resulted in \$300,000 in savings for the 1999-2000 school year—off of a previous \$1.7 million utility budget. A portion of that savings went to cover the fees for Energy Education, Inc, as well as supporting the Energy Manager position. The remaining \$90,000 went directly back to the school district and has facilitated various additional means for cost savings. For example, the saved funds allowed the district to invest in oil futures in the fall, locking in current prices for the coming winter when heating oil prices are forecast to be unusually high.

The Rhode Island State Energy Office has shown continued support for Warwick's efforts through \$56,000 in grants for both solar PV technology and a bio-fuel boiler project. The district is also in the process of implementing a \$28 million bond to build new schools that integrate energy-efficiency measures. The process is currently in the design review stage, conducted by the Energy/Construction Sub-Committee.

Warwick School District's initiative has sparked an unprecedented dialog and cooperation between the schools and the City of Warwick on the topic of energy awareness. In the past, both sides worked independently with regards to energy. Now the two are collaborating and the City is enhancing its own energy program to mirror the Warwick Public Schools initiative.



The EnergySmart Schools campaign is operated by Rebuild America, through the U.S. Department of Energy's Office of Building Technology, State and Community Programs.



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See the EnergySmart Schools Web site at:
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Or call the Energy Efficiency and
Renewable Energy Clearinghouse (EREC)
at: 1-800-DOE-3732

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